



STOP AQUATIC HITCHHIKERS!

PREVENT THE SPREAD OF INVASIVE SPECIES. IT'S THE LAW.

Please take the time to use the portable power washers sponsored by The Watersmeet Lakeguards to wash your watercraft when leaving a lake with a known population of invasive plant.

A power washer will be stationed at the Lakes BP gas station at:

- 12 noon to 8 p.m. on Fridays
- 10 a.m. to 6 p.m. on Saturdays
- 10 a.m. to 6 p.m. on Sundays

This free of charge service is offered to help protect our valuable resource, our wonderful, freshwater lakes!

ENJOY YOUR TIME ON OUR AREA LAKES.

Remember, State law prohibits launching a boat or placing a trailer in navigable waters if it has aquatic plants or zebra mussels attached.

Please, before entering or leaving any water body:

- Inspect & remove any visible mud or plants.
- Drain water from your boat, motor, trailer, live well and bait containers.
- Dispose of any unwanted live bait in the trash.
- Wash your boat and trailer (power washer, car-wash or hand wash at home) to remove invisible species or allow it to dry for five days.

*Thank you, with your help we can
protect our lakes for the future.*



WATERSMEET LAKEGUARDS (ISCCW)

WWW.LAKEGUARDS.ORG

WATERSMEET LAKEGUARDS

Protecting Our Lakes for Future Generations



The Invasive Species Control Coalition of Watersmeet, or ISCCW, is providing a list of lakes with known populations of Eurasian watermilfoil and/or Curly Pondweed. The ISCCW strongly encourages boaters and anglers to inspect their watercraft and remove all vegetation when coming OFF these lakes to protect lakes that are NOT currently populated with invasive plants.

Please take the time to visually inspect your boat when leaving a lake with a known population of invasive plant. Remember to check your boat and trailer. Key points to check include your boat's floor, hull, live well, pumpout well, the motor intake, prop, and lower unit, and your trailer's axle bunks, winch, license plate, rollers, lights/wiring, spare tire, wheels and winch rope. Please remove all visible vegetation. Upon returning home, or before going to another lake, power wash your boat or wash your boat with a solution of bleach and water. This solution should be approximately 20% bleach. Do not use the bleach solution while at the boat landing.

**IRON COUNTY, MICHIGAN LAKES
WITH KNOWN POPULATIONS OF
EURASIAN MILFOIL INCLUDE:**

- Buck Lake
- Chicago Lake
- Ice Lake
- Iron Lake
- Lower Paint Reservoir
- Michigamme Lake
- Paint River Pond
- Peavy Pond
- Runkle Lake

UGA1624031

**GOGEBIC COUNTY LAKES WITH
KNOWN POPULATIONS OF EURASIAN
MILFOIL INCLUDE:**

- Bass Lake -
public boat launch is closed.
- Clearwater Lake
- Cisco Lake-Curly pondweed
- Crooked Lake
- Duck Lake
- Fishhawk Lake-Curly pondweed
- Lac Vieux Desert
- Langford Lake
- Lindsley Lake-Curly pondweed
- Pomeroy Lake
- Thousand Island

Source: Roberts Hill, VLMF © 2007

**VILLAS COUNTY, WISCONSIN LAKES
WITH A KNOWN POPULATION OF
EURASIAN MILFOIL INCLUDE:**

- Big Lake
- Big Sand Lake
- Catfish Lake
- Duck Lake
- Eagle Lake
- Forest Lake
- Lac Vieux Desert
- Otter Lake
- Scattering Rice Lake
- Voyageur Lake
- Watersmeet Lake
- Yellow Birch Lake



Characteristics of Eurasian Watermilfoil:

Eurasian watermilfoil is a particularly nuisance weed in northern climates. Its ability to reproduce from fragments and spread rapidly, its high growth rate in a large range of temperature and environmental conditions, and its tendency to reach the surface and form extensive mats at the surface can allow this milfoil to shade and out-compete native vegetation. Eurasian watermilfoil starts spring growth sooner than native aquatic plants and can shade out these more beneficial plants. The sheer mass of stagnant milfoil can create a good habitat for mosquitoes. Milfoil mats can rob oxygen from the water by preventing the wind from mixing the oxygenated surface waters into deeper water. This can limit the growth of snails that would feed on the organic sediment if oxygen were available. Oxygen-depleted sediments release large quantities of phosphorus and nitrogen, averaging three times the amount coming in from watersheds. The dense mats of vegetation also increase the sedimentation rate.

Eurasian watermilfoil does not only receive its fertilizer from the sediment, but also from the water column, having only a filamentous thread by which this milfoil attaches itself to the bottom. This milfoil can grow just as well whether the thread is attached to the bottom or not. Eurasian watermilfoil has the ability, unlike most native plants, to reproduce from one-inch fragments made by boat motors or during weed harvesting.

Eurasian watermilfoil can extract carbon dioxide directly from the water or from carbonates in the water, which gives this milfoil a definite advantage over many other plants that can only absorb carbon dioxide from bicarbonates in the water. Other advantages are its one-year faster seed germination period than other plants. Most aquatic plants germinate after one or two years, instead of during the first year. Eurasian watermilfoil has the ability for the seeds to withstand drying for one year, compared to 3 - 4 months for other plants. Its fruits withstand freezing. This milfoil reproduces asexually. Milfoil has the ability to grow in more alkaline waters and to grow up to two inches a day.

As with other plants, however, Eurasian watermilfoil has weaknesses that make this milfoil subject to environmental remediation without the use of toxic herbicides. This milfoil must grow in nutrient rich water. It needs high levels of ammonia. The water must have high alkalinity. This milfoil also requires large amounts of carbon dioxide, either in the free form, or in the bicarbonate form. Robert Wetzel, a leading limnologist wrote in his book, *Limnology*, that Eurasian watermilfoil is highly dependent on light, so dark colored water limits its growth. This can change rapidly, as lakes switch every few years from algal growth to weed growth, and from weed growth to algal growth, depending on which become established earliest in the year.

Eurasian watermilfoil can grow in up to twenty feet of water. The dense weed growth prevents wind and waves from oxygenating a large portion of lakes and ponds from spring until fall. While aquatic plants exhaust oxygen into the water during the day, they take up oxygen when photosynthesis reverses at night. The presence of organic sediment in a lake or pond confirms a lack of oxygen at night and during extended periods of the year.

Budget/Operating Plan for 2011

Article 4.18 of the ISCCW bylaws requires that the ISCCW Board of Directors prepare and approve a proposed budget and operating plan for the following year during the fourth quarter of each calendar year. In accordance with our bylaws, the budget and operating plan for calendar year 2011 was approved by the ISCCW Directors at our December 2010 regular meeting.

Anticipated Income. 2011 Income was shown to be \$241,239. This included treasurer's report of \$87,239 cash on hand as of the December 2010 Board of Directors meeting, plus \$20,000 in membership renewals and donations, plus \$20,000 from Watersmeet Township (as a Township AIS services contract), plus a submitted grant request of \$64,000 to "Sustain our Great Lakes" with an additional \$50,000 in various other grant requests either in progress or to be put into progress during spring of 2011. The additional requests being considered included the LVD Tribal Council, the Gogebic RAC Committee, the US Forest Service, and a program known as "Every Day grants". The board approved setting aside \$126,559 of these funds for a contingency/reserve fund and budgeted the remaining \$114,680 of anticipated revenue for our planned programs in 2011.

Operating Plan. In accordance with our Bylaws and Articles of Incorporation, the ISCCW will continue to fight the spread of invasive species through three programs:

- Contracting with two biologists for the surveying and monitoring of various lakes and the compilation of data derived there from as well as the oversight of all ISCCW sponsored eradication programs. Your Board of Directors has established a list of 19 lakes through out the township to be looked at. The lead contractor will schedule and conduct volunteer on-water training sessions on locating and identifying AIS, and in addition, working with two services companies, prepare a plan and DEQ permit data for the extradition treatment of EWM in Bass Lake.
- Contracting with one educator/coordinator for 32 hours per week. This person will be responsible for scheduling the power washer and equipment operators and, in addition, will serve as our primary educator. The educator will place emphasis on attending lake association meetings and other area public functions. These will include the ongoing educational programs at the Ottawa Visitor's Center and Fourth of July parade and various resorts throughout the township, as well as working with other associations and groups dedicated to the eradication of AIS.
- Contracting with three boat washers (two regular, one substitute) to staff our two power washers at locations within the area, as approved by the Board of Directors.

In addition, we will have new promotional materials for giveaway and for sale as well as a major effort at expanding our membership.

Presidents note: Since the budget was initially approved in December several events have occurred which have dictated some major restructuring of our plans for the 2011 eradication programs and, therefore, the budget items associated with this. A revised budget noting these changes is available for review on the www.Lifeguard.com website (beginning July 23rd) along with a list of persons running for Director. Both will be available for review and discussion at the annual membership meeting.

If you can not make the annual membership meeting please complete and mail the proxy vote. If you wish to have your name added to the ballot for Director please notify Dudley Pierce, Ken Wendt, Steve Wilkinson, or Diana Mehlhop.

**CISCO CHAIN RIPARIAN OWNERS-TO COUNTY LEVEL
APPROXIMATE ANNUAL PROPERTY TAX REVENUE**

NEIGHBORHOOD (Lake Area)	STATE EQUALIZED VALUE (SEV)	TAXABLE VALUE (TV)	COMMENTS
Big Lake	3,947,930	2,360,054	Note: Michigan only. Does not include Wisconsin
Cleanwater Lake	3,786,980	3,104,084	
East Bay Lake	11,373,180	6,372,861	
Evergreen	2,619,560	1,633,643	
Fish Hawk Lake	5,788,690	3,679,896	
Indian Lake	544,240	189,560	
Islands	883,550	659,863	
Lindsley Lake	7,780,900	5,152,495	
Majestic Point (Maplewood)	4,926,360	2,977,540	
Morley Lake	2,070,240	1,410,364	
Poor Lake	6,018,280	3,434,680	on 1000 island lake
Resorts	1,712,590	1,306,077	
Personal	59,470	59,470	
1000 Island Lake	27,247,950	16,107,952	
West Bay Lake	6,465,180	4,731,032	
Cisco Lake	15,458,770	9,638,460	
Big Africa Lake	0	0	all property exempt
Little Africa Lake	0	0	mostly exempt (small amt. in Cleanwater)
Record Lake	0	0	all property exempt
Totals	\$100,683,870	\$62,818,031	
County Operating alone	2010 millage 6.6679		annual Cnty tax revenue 6.66790 mills x TV = \$418,864.35
county operating	6.66790		
animal control	0.20000		
MCF-MOE	0.37040		
MCF-Bld.	0.39640		
Transit	0.32260		
Senior program	0.59890		
Total County related	8.55620		8.55620mills x TV = \$537,483.64

Langford Lake Eurasian watermilfoil timeline

2002

- July 2002. John Skogerboe (US Army Corp of Engineers) conducts a 100-meter grid survey of Langford Lake, as part of a 16-lake survey in Watersmeet Township. Langford Lake is the most diverse of sampled lakes, with 31 different aquatic plants documented. He discovers Eurasian watermilfoil at boat launch, however. "The infestation at Langford Lake consisted of scattered plants, along a 100-yard band on either side of the boat ramp. The infestation extended 50 feet out from the ramp."

2003

- July 2003. First EW milfoil herbicide treatment. Langford Lake Riparian Owners Association (LLROA) treats 2.5 acres treated at boat launch with Navigate aquatic herbicide (granular 2,4-D), applied with MDEQ permit by licensed contractor. \$2,150
- October 2003. More EW milfoil is found, and LLROA has another 2 acres treated in one of the south bays of the lake. \$1,620.

2004

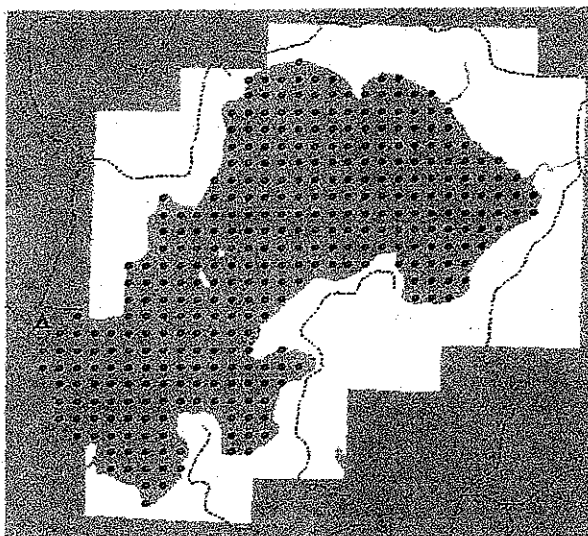
- June 2004. LLROA has scattered sites of EW milfoil treated. 1.5 acres total. \$1,185.
- September 2004. LLROA has another 4.3 acres of scattered EW milfoil treated. \$2,698.

2005

- June 2005. EW milfoil found in several spots throughout lake. 4.85 acres treated. \$3,059.
- August 2005. More EW milfoil found in several locations. 4.33 acres treated. \$3,470.

2006

- May 2006. US Forest Service agrees to start helping with control of EW milfoil.
- May 20-30, 2006. Barb Gajewski, under FS contract, maps EW milfoil in Langford Lake.
- June 8, 2006. US Forest Service contracts with Northern Environmental to treat 16.5 acres treated throughout lake (based on 2005 survey). Much more than 16.5 acres is observed, however. \$6,435.
- July 6, 2006. Barb Gajewski maps many sites of EW milfoil in a post-treatment survey.
- July 26 & 27, 2006. John Skogerboe returns to Langford Lake with Bill Ratajczyk of Applied Biochemists, master distributor of Navigate herbicide. John recommends a grid survey of Langford Lake be repeated, to map milfoil and see if any changes to aquatic plant community have occurred.
- September 13 & 14, 2006. FS pays for Northern Environmental to conduct a 75-meter grid survey of Langford Lake.
- November 2006. John Skogerboe proposes a research project to use early-season treatment of EW milfoil in Langford Lake. The high aquatic diversity and the demonstrated commitment of the Lake Association made Langford a good candidate for a research project.



500
600
000

100
500

Langford Lake Eurasian watermilfoil timeline

2007

- Army Corp early spring 2,4-D experiment year 1 of 3.
- February 2007. Nufarm Inc. (manufacturer of Navigate) agrees to donate Navigate herbicide.
- March 2007. Marine Biochemists, sister company of Applied Biochemists, agrees to be applicator for Langford Lake treatment for free. LLROA arranges for MDEQ permit (\$1,500).
- May 7 & 8, 2007. Marine Biochemists applies 17,000 pounds (8.5 tons) of Navigate to 111 acres of Langford Lake.
- May to June 2007. LLROA collects weekly water samples for measurement of herbicide residue.
- June 11-13, 2007. John Skogerboe returns to Langford Lake for post-treatment monitoring.
- June 11-14, 2007. US Forest Service conducts a fish survey of Langford Lake.
- August 2007. John Skogerboe returns for more post-treatment monitoring.

2008

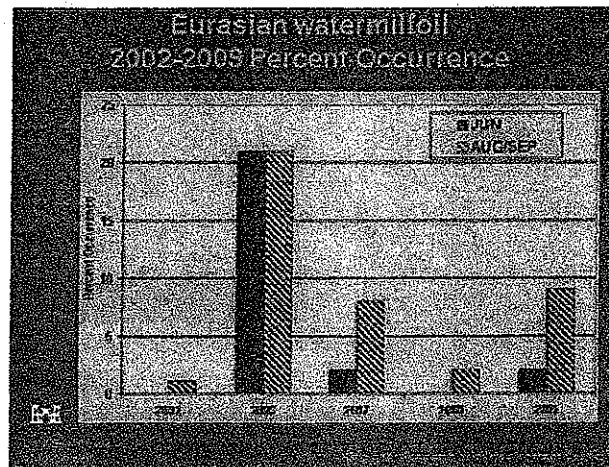
- Army Corp early spring 2,4-D experiment year 2 of 3.
- May 19, 2008: Marine Biochemists applies 17,050 pounds (8.5 tons) of Navigate to 112.8 acres.
- October 21, 2008: Marine Biochemists adds a fall treatment and applies 750 pounds of Navigate to 4 acres.

2009

- Army Corp early spring 2,4-D experiment year 3 of 3.
- May 12, 2009: Marine Biochemists applies 5,650 pounds (2.8 tons) of Navigate to 35.1 acres.
- October 7, 2009: Marine Biochemists applies 3,195 pounds (1.6 tons) of Navigate to 18.8 acres.

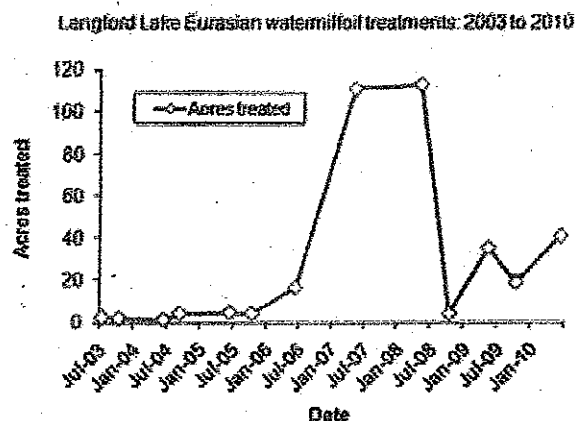
Conclusions

- *Eurasian watermilfoil has been reduced both in frequency and density.*
- *Yearly treatment requirements to maintain control have been reduced.*
- *The native aquatic plant community including many native dicots have not been adversely affected.*



2010

- Army Corp arranges an experimental treatment to compare the effects of Navigate (2,4-D) and Navitrol (triclopyr) aquatic herbicides. Nufarm again donates herbicide and Marine Biochemists donates application.
- June 10, 2010: Marine Biochemists applies 4,519 pounds (2.3 tons) of Navigate and 4,417 pounds of Navitrol (2.2 tons) to 40.6 acres total.



Langford Lake Aquatic Herbicide Treatments: 2003 to 2010

Permit No.	Treatment Date	Year	Acres treated	Herbicide	Rate (lbs. per acre)	Total pounds herbicide	Applicator	Cost	Cost per acre	Value of application (1)	Notes
03-98-0162-0	7/30/2003	2003	2.5	2,4-D	100	250	Aquatic Biologists Inc.	\$2,150.00	\$860.00		
03-98-0162-0	10/10/2003	2003	2	2,4-D	100	200	Aquatic Biologists Inc.	\$1,620.00	\$810.00		
04-98-0070-0	6/22/2004	2004	1.5	2,4-D	100	150	Aquatic Biologists Inc.	\$1,185.00	\$790.00		
04-98-0070-0	9/11/2004	2004	4.3	2,4-D	100	430	Aquatic Biologists Inc.	\$2,698.16	\$627.48		
05-98-0046-0	8/16/2005	2005	4.85	2,4-D	100	485	Aquatic Biologists Inc.	\$3,059.00	\$630.72		
05-98-0046-0 ?	10/1/2005	2005	4.33	2,4-D	100	433	W1 Lakes & Pond Resource	\$3,470.00	\$801.39		
06-98-0167-0	6/8/2006	2006	16.5	2,4-D	150	2,475	Northern Environmental	\$6,435.00	\$390.00		By the day of the treatment, it was evident that much more than 16.5 acres was infested.
07-98-1080-0	5/8/2007	2007	111	2,4-D	150 and 200	17,000	Marine Biochemists	Free	Free	\$43,290	Year 1 Army Corp early-season study
08-98-0775-0	5/19/2008	2008	112.8	2,4-D	150 and 200	17,050	Marine Biochemists	Free	Free	\$43,992	Year 2 Army Corp early-season study
08-98-0775-0	10/21/2008	2008	4	2,4-D	187.5	750	Marine Biochemists	Free	Free	\$1,560	Extra fall treatment
09-98-1346-0	5/12/2009	2009	35.1	2,4-D	150 and 200	5,650	Marine Biochemists	Free	Free	\$13,689	Year 3 Army Corp early-season study
09-98-1346-0	10/7/2009	2009	18.8	2,4-D	150 and 200	3,195	Marine Biochemists	Free	Free	\$7,332	Extra fall treatment
10-98-1815-0	6/10/2010	2010	40.6	2,4-D & triclopyr	Navigate: 114 to 171 Navitrol: 112 to 287	8,936	Marine Biochemists	Free	Free	\$15,834	Army Corp Navigate & Navitrol study. 4519 pounds of Navigate, 4417 pounds of Navitrol
					Total	57004			Total (2):	\$125,697.00	

(1) Value of application is based on the \$390 per acre LLROA paid Northern Environmental in 2006.

(2) Note this total does not include the costs of MDEQ permits (\$800 to 1,500 per year) or the costs of mapping EW milfoil infested areas.

Good afternoon. My name is Dudley Pierce and I'm appearing before you today representing the Invasive Species Control Coalition of Watersmeet (ISCCW). Watersmeet is a small Township in the far western U.P. which has many lakes that provide both a substantial tax base and attracts thousands of tourists annually. For the past 10 years these lakes and our entire economy have been under attack by the spread of aquatic invasive species, the most volatile of which is Eurasian Water Milfoil.

Eurasian Water Milfoil is a particularly aggressive invasive weed with a rapid growth rate (up to 2 inches a day), the ability to take root after up to a year out of water, and the ability to spread both thru the distribution of its seeds and/or fronds off the plants which will take root and grow within 10 days of landing. Milfoil spreads rapidly and it is able to grow year round, not going dormant during winter months. The need for immediate treatment is imperative. Permitting thru the DEQ takes up to 2 months during the summer and the arbitrary cut off date for treatment applications of August 15, prevents any fall treatments from occurring, allowing the milfoil to spread unchecked for up to 9 months before any action can be taken.

I am here today to ask the committee to consider two actions which will greatly assist groups such of ours in fighting the rampant spread of milfoil. First, as part of proposed Senate Bills 508-510, the DNR should be assigned a greater role in the monitoring of DNR controlled boat launches. Of the 6 DNR landings in Watersmeet, 4 of them are located on lakes which are currently battling milfoil. Second, the DEQ must institute an expedited permitting process for the treatment of Eurasian Water Milfoil, allowing groups such as ours to commence treatment in a matter of days rather than the current standard of 1-2 months.

A majority of outbreaks of milfoil are discovered first at boat landings where seeds and fronds are introduced by transient boat traffic coming from other infected lakes. Mandating that the DNR conduct "pre-treatment" surveys of all their boat launches providing information regarding the areas around the launches as required in the DEQ permitting process. Require the DNR to conduct monthly surveys of the lake bottom surrounding these boat launches during the peak usage months of May thru September. Lastly, provide for almost immediate permitting to the DNR by the DEQ for any outbreak of milfoil discovered by the DNR. Treatment could then commence immediately. The permits must be issued to allow for treatment of the entire area surrounding the boat launch.

Currently, the DEQ permitting process takes an average of 1-2 months from receipt of an application. Once the plants are disturbed, the loosened fronds drift freely thru out the lake. These fronds then take root establishing new colonies. In our 6 years of experience in fighting milfoil, the DEQ simply reviews the permit applications, determines if they meet all the established criteria and issues the permit. Permits are issued on the basis of the extent of the outbreak at the application time. With a lag time of 1-2 months, the outbreak has spread to a greater area and to other locations not included in the initial permit. Treatment of these additional areas then requires a new permit and sets the cycle in motion again. Should the outbreak or spread of milfoil be discovered in mid-August, the DEQ will not issue any permit until the following spring, giving the plants the opportunity to grow and spread unchecked for up to 9 months. Clearly, the current permitting process is inadequate to address the aggressive spread of milfoil in our lakes.

In conclusion, I recognize that in this time of financial crisis in the state of Michigan, any proposal which requires the additional expenditure of funds is met with a degree of skepticism. The additional requirements I have proposed for the DNR could be paid for from the license fees now being charged by the DEQ for doing nothing. In the past month, our biologists have discovered 16 new locations of milfoil on the Cisco Chain of Lakes. These locations were discovered too late in the year to allow for permitting and treatment this year and will not be treated until next spring. The Cisco Chain provides a net taxable value to the Township, County, and State of in excess of \$100,000,000. The current outbreak of milfoil, coupled with our inability to promptly treat the affected areas for the next 8-9 months puts the Chain at risk.

The onslaught of invasive species is well under way. The time for committees, discussion, and extensive bureaucratic red tape have long passed. The need to take action is now. By assigning responsibility for DNR owned boat launches to the DNR, requiring pre-treatment surveys of these launches, and expediting the permitting process will help address the problem we are now facing.

I'd like to thank the committee for the opportunity to address the building crisis of aquatic invasive species and in particular Eurasian Water Milfoil. I encourage each member to review the information provided in order to gain a greater understanding of the magnitude of this problem and how groups such as the ISCCW strive to address it. Without greater participation from the DNR and DEQ, this problem will continue to grow and stands to threaten every lake in the State of Michigan. Thank you.